

2 4 0114

EXHIBIT

301

16679

WORK PLAN FOR THE
EXPLORATORY EXCAVATION
OF THE JOHN P. SAAD SITE
3655 TROUSDALE DRIVE
NASHVILLE, TENNESSEE

FEBRUARY 13, 1991

Prepared by

empe inc

consulting engineers and environmental scientists

PLAZA I SUITE 410 • 220 ATHENS WAY • NASHVILLE, TENNESSEE 37228
(615) 255-9300 FAX (615) 255-9345

TABLE OF CONTENTS

| | PAGE |
|---------------------------|------|
| I. INTRODUCTION | 1 |
| II. SCOPE | 1 |
| III. PREPARATION | 3 |
| IV. SAFETY | 3 |
| V. EXPLORATORY EXCAVATION | 4 |
| VI. POST EXCAVATION | 6 |

I. INTRODUCTION

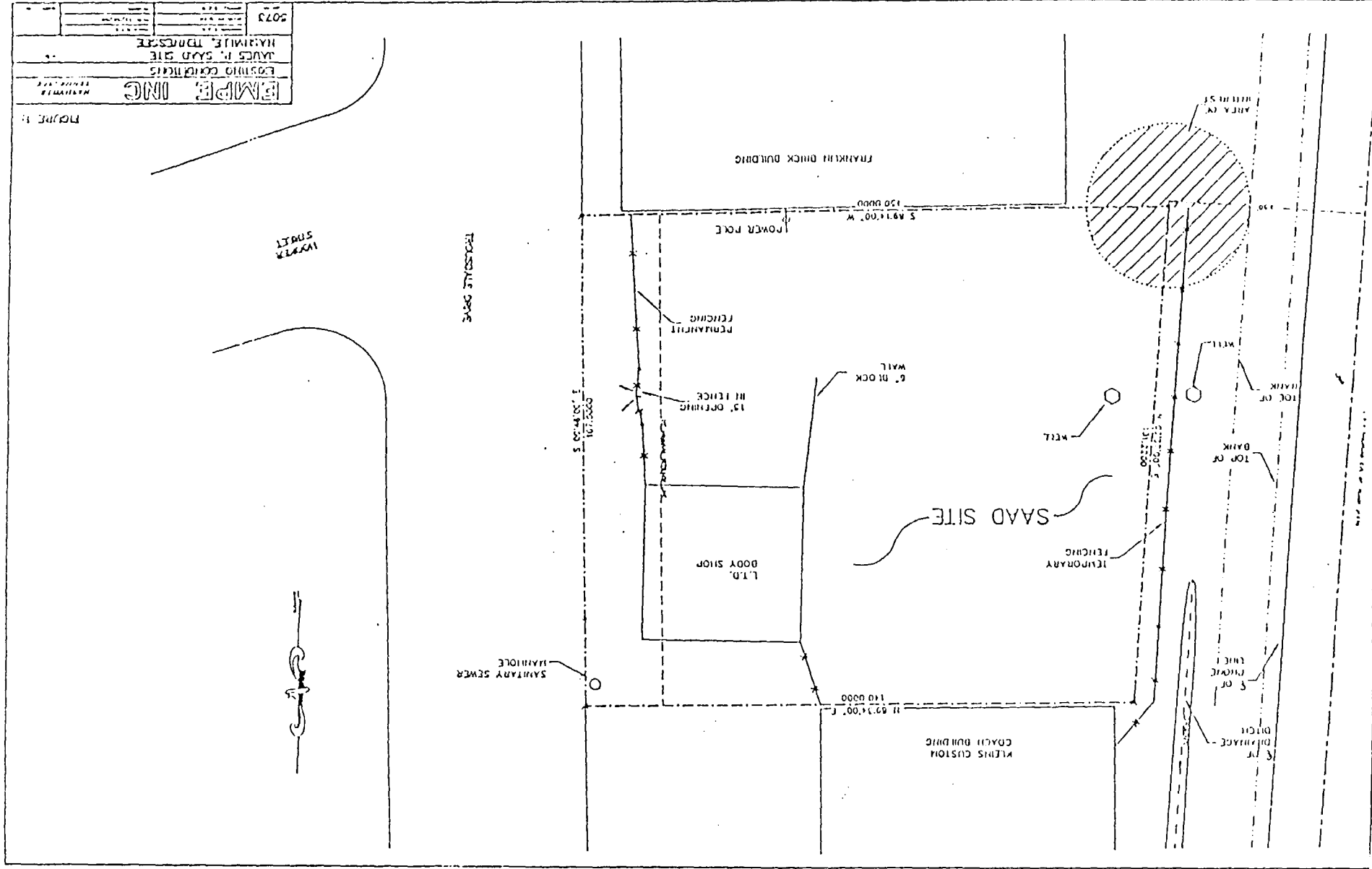
The John P. Saad site on Trousdale Drive is a one-half acre parcel of property on which a waste recycling business was in operation during the 1970's and 80's. In 1978, environmental issues associated with the site were raised when a settling basin was alleged to contain hazardous constituents. Drums, aboveground storage tanks and underground storage tanks containing waste oil and solvents also were located on the subject property. The major area of concern was the waste oil settling basin referred to variously as a lagoon, pond, sinkhole, and depression. The basin was located at or near the southwest corner of the property and may have extended to the rear of a concrete products company adjacent to the Saad site. Available information indicates concrete delivery trucks returning from building sites were emptied of remaining concrete and washed out in this area.

This Work Plan is intended to delineate the former waste oil settling basin (called the Area of Interest on Figure 1) with the goal of determining whether the basin contains hazardous sludges that may be buried beneath the surface. If suspected hazardous materials are uncovered, the composition and extent of the materials will be determined through sampling and laboratory analysis of material encountered.

II. SCOPE

Conversations with individuals familiar with the site (including regulatory personnel) indicate that the waste oil basin was actually a low lying depression partially sealed with concrete from the concrete mixing plant that operated adjacent to that location. Later, the operators of the site filled the depression with backfill. The intent of exploratory excavation is to remove this backfill cover and determine whether hazardous sludges exist in the Area of Interest.

The basin area is suspected to include the southwest corner of Saad property, the rear of the Franklin Brick Company located to the south and immediately adjacent to the subject property, and the CSX railroad right-of-way at the rear of the property.



Investigation of the basin area, therefore, requires appropriate access to these properties prior to implementation of this Work Plan.

III. PREPARATION

EMPE will seek the cooperation of the present owner of the property and/or tenant to have all obstacles and debris removed from the work area prior to initiation of investigative activities. Due to the limited work area at the Saad site, any obstacles must be removed prior to initiation of the work. It appears that the auto body shop operation at the front of the property has placed a substantial amount of wrecked car bodies and other parts to the rear of the property. All debris must be removed from the work site for the following safety, environmental, and logistical reasons:

1. With such a small work area, the debris scattered over the site presents slip, trip and fall hazards to anyone working there.
2. Debris needlessly mixed with hazardous substances could create a much larger quantity of "mixed" hazardous waste.
3. As the area is excavated, the soil removed from the pit will be staged in piles according to its visual characteristics. All available space at the rear of the property will be needed for staging.

IV. SAFETY

A detailed site safety plan will be prepared prior to initiation of on-site activities. The basic elements of the site safety plan are outlined as follows.

A safety meeting will be held with all site personnel prior to excavation activities. The EMPE designated Site Safety Officer will preside. Knowledge of the Saad Site gained thus far indicates that Level D protection will be adequate as excavation begins. However, EMPE will conduct continuous vapor monitoring of the excavation area to ensure that toxic concentrations of hazardous vapors do not exist. The Site Safety Officer will establish baseline concentrations of organic vapors prior to initiation of investigative activities. If at

any time concentrations of organic vapors exceed the baseline concentration, all personnel will immediately retire from the area. The Site Safety Officer will continue to monitor the area for a period of one hour to determine whether to upgrade the requirement for personal protective equipment. If toxic concentrations persist, personnel will be required to don respirators with organic vapor cartridges prior to re-entering the work zone.

In addition to standard Level D personal protective equipment, EMPE will bring the following safety equipment to the site for use as is deemed necessary by the Site Safety Officer:

- * Full-Face Respirators
- * Organic Vapor Cartridges
- * H-nu Organic Vapor Detector
- * Fire Extinguisher
- * Eyewash Station
- * First Aid Kit
- * Air Horn

Tyvek suits and rubber gloves will be worn by personnel entering the excavation area to ensure that hazardous sludges do not contaminate clothing or skin. All protective clothing will be left at the site in an appropriately marked container.

V. EXPLORATORY EXCAVATION

A back hoe will be mobilized to the site prior to beginning work. This machine will be capable of removing (if necessary to access deeper areas) discrete homogeneous layers of material and placing them in staging areas located on the Saad property. Backfill covering the Area of Interest will be removed initially, which should reveal the perimeter of any sludge materials. If sludges are encountered, then test holes will be made to determine depth of the sludge. All materials taken from the excavation will be placed on 6

millimeter thick polyethylenic plastic to prevent cross contamination of other soil. The project manager will make the determination of material type as the excavation proceeds.

Sampling and on-site analysis of excavated materials will occur as deemed appropriate by the EMPE project manager and the EPA field investigation team (FIT) representative. A variety of methods may be employed including the following:

1. Jar Tests or Hanby Analysis - Jar Tests can provide relative readings of volatile organic compounds and some petroleum hydrocarbons by using an organic vapor analyzer to analyze the head space in sample jars where a measured amount of material has been placed. The Hanby Analysis uses a soil washing technique which extracts petroleum products from the soil. After application of appropriate reagents, contamination levels are identified by a color code which directly relates to the concentration of the contaminant.
2. Sample Gathering - EMPE may collect limited soil and/or sludge samples, as necessary, and analyze such samples for volatile organic compounds (VOCs), and toxic metals. After initial characterization of the excavated materials, a Toxicity Characterization Leaching Procedure (TCLP) may be required to establish a means of disposal for any contaminated material.

Excavation shall proceed until the alleged concrete or clean native soil is encountered. Since the estimated maximum depth of the former settling basin was six feet, it is anticipated that the exploratory excavation will not exceed this depth. Under no circumstances will the excavation proceed to a depth greater than ten (10) feet. It is expected that some impediments may be encountered during the excavation; if so the excavation will proceed until it is deemed impractical to continue the excavation in that particular location.

VI. POST EXCAVATION

After the exploratory excavation has been initiated, two possible scenarios are anticipated:

1. No sludges or other hazardous waste are discovered in the pit.
2. Hazardous wastes or suspected hazardous wastes are discovered.

Scenario #1

If the EPA FIT director concludes that no evidence of hazardous waste is discovered during excavation, all excavated materials will be put back into the pit and this portion of the investigation will be complete.

Scenario #2

If suspected hazardous wastes are discovered, all excavated pit areas will be lined with 6 millimeter polyethylene; the excavated soil will then be replaced in the pit(s) on top of the polyethylene. Figure 2 illustrates the proposed placement of polyethylene in the pit. The entire surface area of the uncovered hazardous waste will be covered with 6 millimeter polyethylene to reduce surface water runoff and infiltration. This procedure will reduce rain water infiltration through the loose, disturbed soil and into the waste material.

In either event, a report will be submitted to the EPA on findings related to the Area of Interest and general estimates as to the cost of remediation alternatives.

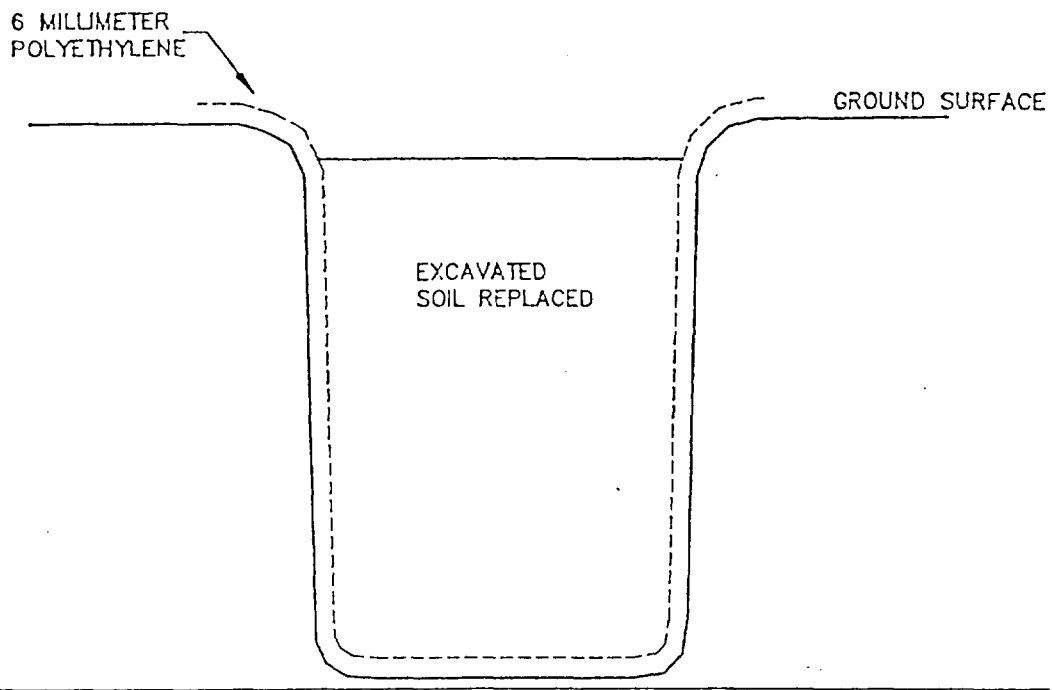


FIGURE 2:
PROPOSED POST-EXCAVATION
PIT CLOSURE
(SIDE VIEW)